

## J. CAPITAL ASSET AND FACILITY PLANNING METHODOLOGY

### J.1 OVERVIEW

This section outlines the methodologies used by the Facilities Team to review and plan for capital asset realignment within the VISN 12 portfolio. The Facilities Team, comprising representatives from Booz·Allen & Hamilton, VW International, The SmithGroup, Vanderweil Facility Advisors, and CB Richard Ellis (CBRE), evaluated the existing VISN 12 facility portfolio using these methodologies to plan for the new construction, renovation, and disposal/Enhanced Use projects created by the implementation of the service delivery options (SDO). This team employed their functional expertise with the standards and practices of their respective industries to construct these plans and analyses.

#### J.1.1 Comprehensive facility and real estate data serves as the baseline for the development of the CAR Plans.

The VA provided the Facilities Team with baseline documentation including the VISN 12 Condition Assessment Database, VA Space and Functional Database, FY 2000–FY 2001 Nonrecurring maintenance and minor capital plans, and VISN 12 Medical Center site and building floor plans. The team used the documentation and created a baseline report that was reviewed and verified during facility assessment visits to all eight VISN 12 Medical Center campuses.

During the Medical Center visits, meetings with leaders from each facility were conducted. The team and facility leaders reviewed existing space utilization and current or proposed construction projects, identified facility constraints and opportunities, and discussed the functional layout of medical care and support space. After each meeting, a tour of the facility was given and the facility and infrastructure condition was documented. In addition, the team assessed surrounding area/neighborhood as part of the real estate evaluation process.

#### J.1.2 Space planning methodologies are based upon industry standards.

The space planning methodology was based on a number of references including, but not limited to, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Guidelines for Design and Construction of Hospital and Health Care Facilities (1996–1997), VA Handbook 7610, ADA Accessibility Guidelines for Building and Facilities (ADAAG), and industry standards. The team also created a Program for Design (PFD) to check space requirements. The methodology set the standard for the level of care against which each facility was evaluated.

##### ***Inpatient Methodology***

The team evaluated each facility using the references outlined above and a maximum possible bed number was estimated. To meet current standards for care, it was assumed that many facilities would require a level of renovation to support the FY 2010 workload. Requirements such as providing

toilets for a maximum of four beds without the patient having to enter the general corridor and/or having the appropriate number of ADA accessible toilets were used in the space and bed count requirement. In addition, the team planned for access to air and light, required adjacencies, patient accessibility, minimum clear floor area, and accessible bathing facilities. When a facility bed count was in question because of less than ideal physical configuration, test to fit plan options were generated. The test to fit plans worked within the physical configuration of the original plans and realistically looked at how bed space could be configured.

It was assumed that the options required the needed support space related to a function. For example, given a required Acute Care bed count, an associated number of Critical Care Unit (CCU) beds are needed. Each facility was evaluated for that number of CCU beds. If the facility could not meet that number due to lack of existing CCU space or substandard configuration, the team sought out additional space. If the total space requirement for an option was exceeded or the correct location or configuration of space did not allow for new CCU areas, then the area was “red-flagged”. In other words, if a facility option did not meet the methodology requirements and could not physically contain the option requirements, a deficiency was noted.

### ***Ambulatory and Treatment Methodology***

A similar approach to the inpatient areas was used for ambulatory care. Workload provided was used to generate the required clinic and treatment space for each medical center. The following formulas were developed using JCAHO, ADA, VA, and industry guidelines and were created to assist in the ambulatory care space requirement. The space requirements were used to create a Program for Design (PFD) that was verified against the existing facility portfolio. The PFD included areas such as exam rooms (two per provider), provider offices, treatment rooms, resident areas, nursing areas, administrative offices, and support spaces. In general it was determined that most facilities meet the space needs for clinic and treatment areas. When a facility was in question, an appropriate project was recommended.

### ***Methodology and Formulas***

The following formulas were used in the analysis of space requirements for VISN 12. The formulas generated space estimates that were compared to the existing VISN 12 portfolio. The following formulas were created using a number of resources including Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Guidelines for Design and Construction of Hospital and Health Care Facilities (1996-1997), VA Handbook 7610, and industry standards:

- Total hours available per room:
  - 8hrs/day x 5 days = 40 hrs/week
  - 40 hrs/week x 4.33 weeks = 173 hrs/month
  - Assume 90 percent efficiency:
    - 173 hrs/month x 0.9 = 155.98 hrs/month
    - 155.98 hrs/month = 36.02 hrs/week

- Total hours available per emergency exam room:
  - 24 hrs/day x 7 days = 168 hrs/week
  - 168 hrs week x 4.33 weeks = 727.44 hrs/month
  - Assume 90 percent efficiency
    - 727.44 hrs/month x 0.9 = 654.696 hrs/month
    - 654.696 hrs/month = 151.2hrs/ week
- Outpatient clinic methodology:
  - Number of required exam rooms and offices x 120 net square feet (NSF) = net treatment area
  - Net treatment space x support space multiplier\* = required net support space
  - Net treatment space + net support space = total required NSF
  - Total required NSF x net to gross ratio = required department gross square feet (GSF)
- Laboratory methodology:
  - Laboratory work area x support space multiplier\* = required NSF
  - Required NSF x 1.5 = required departmental GSF
- Pharmacy Methodology:
  - Department area derived from historic data and comparable programs
- Area requirements per non-medical clinician:
  - 1 office @ 150 NSF each = 150 NSF/Clinician
  - 150 NSF/Clinician x 1.3\* = 195 department GSF/Clinician
  - 195 GSF/Clinician x 1.2\* = 234 building GSF/Clinician

\*Support space multiplier derived from historical data and comparable programs

\*1.3 = department net to department gross factor

\*1.2 = department gross to building gross factor

### **Methodology Exhibits**

The Design Standards illustrations shown at the end of this appendix outline and explain key elements of the evaluation of the VISN 12 medical centers and the development of the Capital Asset Realignment Plans (CAR Plans). The exhibits first illustrate the key elements as stated in resources such as *JCAHO, Guidelines for Design and Construction of Hospital and Health Care Facilities* (1996–1997), *VA Handbook 7610*, and other industry standards. An example “test to fit plan” also shows how an existing facility may be upgraded to provide care for the FY 2010 patient requirement. The exhibits shown should not be viewed as the final solution or the best solution possible. They are only intended to outline requirements and illustrate a process, which is in the preliminary stages of a final facility solution.

### J.1.3 Project planning principles cover the spectrum of realignment strategies.

Each project identified in each option has been evaluated for the existing condition and configuration of the facility in which it is housed as well as for the long-term needs of the patient population. Under this evaluation, and in consideration of all applicable codes and standards for a suitable environment of care, each project has been assigned a specific project type. Each project type has an appropriate rough order of magnitude per square foot construction cost estimate, accounting for type of occupancy (e.g., institutional, business), and geographic area cost adjustments. An additional 10 percent of total construction cost was applied for design and programming fees, 15 percent for furniture and furnishings, and 2 percent for interim and commissioning cost. A complete description of the cost methodologies, including capital cost estimation, is included in Appendix L.

The following table serves as a key to the Project Inventory Table found in each CAR Plan.

***Exhibit J-1. Key to Project Inventory Table***

| PROJECT TYPE            | ID | UNIT COST (\$/GSF) |        |        | DESCRIPTION   |
|-------------------------|----|--------------------|--------|--------|---|
| Demolition              | D  | \$6.10             |        |        | Destruction of an existing building is recommended when it is no longer required to support the mission, house a tenant, or contribute to the mission due to condition, configuration or siting issues. Demolition is considered when no other viable uses for the facility are identified and is a means to avoid the recurring costs of maintenance and repair. |
| Mothball                | M  | (NA)               |        |        | Mothballing a facility is a process by which a building or partitioned portions of a building are decommissioned. Utilities are insulated and service reduced to the minimum threshold to prevent failure. The purpose is to minimize the recurring cost of heating, lighting, etc., vacant space in a building of which a portion remains utilized.              |
| Renovation —<br>Level 1 | R1 |                    | I      | B      | Level 1 renovation is used where the existing configuration of the space is suitable for the mission and is compliant with all codes and standards of care. R1 is primarily cosmetic upgrades with few functional/structural changes.   |
|                         |    | Ch. City           | 95.76  | 82.00  |   |
|                         |    | Ch. Area           | 76.86  | 65.88  |   |
|                         |    | VISN               | 72.45  | 62.10  |   |
| Renovation—<br>Level 2  | R2 |                    | I      | B      | Level 2 renovation is used when a moderate level of functional/structural changes are required to improve a space to meet code and environment of care standards. R2 includes utility and system upgrades.  |
|                         |    | Ch. City           | 159.60 | 136.80 |   |
|                         |    | Ch. Area           | 128.10 | 109.80 |   |
|                         |    | VISN               | 120.75 | 103.50 |   |
| Renovation—<br>Level 3  | R3 |                    | I      | B      | Level 3 renovation is used when a complete restructuring of the functional/structural and primary utilities is required to improve a space or building to meet code and environment of care standards. R3 is a slab-to-slab total upgrade including new primary utility services.   |
|                         |    | Ch. City           | 239.40 | 205.20 |   |
|                         |    | Ch. Area           | 192.15 | 164.70 |   |
|                         |    | VISN               | 181.12 | 155.25 |   |
| New<br>Construction     | NC |                    | I      | B      | New construction is used when a building on an existing facility is not present, available, or suitable for renovation to house a particular service or mission. This is particularly important for services and missions that require specialized equipment or space (e.g., Special Disability Programs).  |
|                         |    | Ch. City           | 319.00 | 225.00 |   |
|                         |    | Ch. Area           | 256.00 | 181.00 |   |
|                         |    | VISN               | 241.00 | 170.00 |   |

| PROJECT TYPE    | ID | UNIT COST (\$/GSF)                 | DESCRIPTION   |
|-----------------|----|------------------------------------|---|
| Lease for Space | L  | Varies by Market<br>(see CAR Plan) | Lease agreements are entered into for the activation of additional community-based outpatient clinics. It is assumed that clinic space would be sought that is collocated with other healthcare tenants with a configuration suitable to house primary care services. Otherwise, any reconfiguration expense required would be covered in tenant improvement allowances and amortized into the annual rent cost.  |
| Enhanced Use    | EU | (NA)                               | Enhanced Use projects are recommended where an outlease of existing space, facilities and/or real property presents an opportunity to provide in return any number of benefits to VHA. These benefits can include, but are not limited to, incremental revenue from lessee, capacity for services, recurring cost avoidance, reconfiguration/modernization of facilities at the expense of the lessee and collocation opportunities for additional VA, DoD, local, or state partners. |

The principles of a standard critical path methodology determined the conceptual phasing for the projects. Dependencies were determined between projects for space utilization and impact on patient flow. Cross-facility dependencies, while rare, were also taken into consideration. Based upon past experience and standard planning principles, the duration of each project was also estimated. The CARES Team worked under the planning assumption that these projects would be implemented in parallel wherever possible so that the benefits would be realized as soon as possible in the LCC analysis. The CARES Team recognizes that availability of funding (either through appropriations or Enhanced Use revenue via the VA Health Services Improvement Fund) may be problematic in holding to this phasing. Therefore, through the process of implementation planning, the schedule for the rollout of these projects will have to be adjusted.

#### **J.1.4 Real Estate Market Valuation is based upon a broker's opinion of value methodology.**

Facilities team member CBRE performed a Broker's Opinion of Value (BOV) for each medical center that was identified as a potential candidate for disposal or Enhanced Use Leasing project of some scale. Through the analysis of the current portfolio and preliminary definition of SDOs, opportunities for redevelopment or areas where it was anticipated that supply would exceed demand in FY 2010 were identified.

Drawing upon staff from offices in the local real estate markets and from the CBRE Healthcare Industry Group, the CARES team performed market-based valuation of this set of assets. Each valuation report includes a description of the subject property's location, site, and improvements characteristics, along with a summary valuation. The BOV is based on the Cost and Sales Comparison approaches, as applicable, correlating the findings into a final value conclusion. It is recognized that the reliability of the Sales Comparison Approach may be limited because of the specialized nature of the properties and the quality of truly comparable sales data available in a given location. Therefore, these valuations are based upon data and knowledge of the given market, product type, highest and best use, and available comparable sales in the area.

Several assumptions are required to guide the valuation of this broad and varied collection of assets. They include—

- Valuation, given a determined highest and best use, is based primarily on comparable sales of similar properties (improved or unimproved) in the area or county. Where necessary, values are established based on pro forma analysis given the highest and best use as it relates to the surrounding area.
- Where the land has a greater value than the land and the existing improvements combined, the value is based on land value less any cost of demolition.
- Evaluation of unimproved property or property designated for redevelopment includes no adjustments for proximity to utilities on site.
- Intrinsic value of the asset attributed to the potential sale or outlease to the neighboring landowner (i.e., affiliate) is not taken into consideration, but would be a factor when bringing the property to market.
- Environmental issues are not factored into the estimated value.

The BOV reports are located in Appendix K.